

***Amendments to the Claims***

The listing of claims will replace all prior versions, and listings of claims in the application.

1-19. (cancelled).

20. (currently amended) A method of screening for an agonist or an antagonist of PTH receptor activity comprising:

(a) contacting cells with a test compound wherein said cells express a rδNt polypeptide having an amino acid sequence at least 95% identical to a sequence selected from the group consisting of:

(i) the amino acid sequence from about position 1 to about position 435 in SEQ ID NO:2, wherein the extracellular amino-terminal ligand binding domain is deleted;

(ii) the amino acid sequence from about position 2 to about position 435 in SEQ ID NO:2, wherein the extracellular amino-terminal ligand binding domain is deleted;

(iii) the amino acid sequence from about position 23 to about position 435 in SEQ ID NO:2, wherein the extracellular amino-terminal ligand binding domain is deleted;

(iv) the amino acid sequence of the rδNt polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. PTA-1136, wherein the extracellular amino-terminal ligand binding domain is deleted; and

(v) the amino acid sequence of the mature rδNt polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. PTA-1136, wherein the extracellular amino-terminal ligand binding domain is deleted;

wherein said polypeptide increases intracellular cAMP levels when activated by PTH or PTH-related peptide ~~has substantially identical structure and function to the structure and function of a rδNt receptor~~ and wherein said polypeptide ~~comprises a deletion of the extracellular amino-terminal ligand binding domain of a PTH-1 receptor,~~ said extracellular amino-terminal ligand binding domain ~~having~~ has an amino acid sequence from about residue 26 to about residue 181 in wild-type PTH receptor;

(b) measuring cAMP accumulation in said cells; and

(c) determining whether said test compound is an agonist or an antagonist of PTH receptor activity.

21. (cancelled).

22. (previously presented) The method of claim 20, wherein said agonist is a peptide.

23. (previously presented) The method of claim 20, wherein said antagonist is a peptide.

24. (currently amended) A method of screening for an agonist or an antagonist of PTH receptor activity comprising:

- (a) contacting cells with a test compound wherein said cells express a rδNt polypeptide, wherein said cells comprise a polynucleotide having a nucleotide sequence at least 95% identical to a sequence selected from the group consisting of:
- (i) a nucleotide sequence encoding the amino acid sequence from about position 1 to about position 435 in SEQ ID NO:2, wherein the extracellular amino-terminal ligand binding domain is deleted;
  - (ii) a nucleotide sequence encoding the amino acid sequence from about position 2 to about position 435 in SEQ ID NO:2, wherein the extracellular amino-terminal ligand binding domain is deleted;
  - (iii) a nucleotide sequence encoding the amino acid sequence from about position 23 to about position 435 in SEQ ID NO:2, wherein the extracellular amino-terminal ligand binding domain is deleted;
  - (iv) a nucleotide sequence encoding the rδNt polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. PTA-1136, wherein the extracellular amino-terminal ligand binding domain is deleted; and
  - (v) a nucleotide sequence encoding the mature rδNt polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. PTA-1136, wherein the extracellular amino-terminal ligand binding domain is deleted;

wherein said polypeptide increases intracellular cAMP levels when activated by PTH or PTH-related peptide ~~has substantially identical structure and function to the structure and function of a rδNt receptor~~ and wherein said polypeptide ~~comprises a deletion of the extracellular amino-terminal ligand binding domain of a PTH-1 receptor;~~

~~said~~ extracellular amino-terminal ligand binding domain has ~~having~~ an amino acid sequence from about residue 26 to about residue 181 in wild-type PTH receptor;

- (b) measuring cAMP accumulation in said cells; and
- (c) determining whether said test compound is an agonist or an antagonist of PTH receptor activity.

25. (currently amended) A method of screening for an agonist or an antagonist of PTH receptor activity comprising:

- (a) contacting cells with a test compound wherein said cells express a rδNt polypeptide having an amino acid sequence selected from the group consisting of:
  - (i) the amino acid sequence from about position 1 to about position 435 in SEQ ID NO:2;
  - (ii) the amino acid sequence from about position 2 to about position 435 in SEQ ID NO:2;
  - (iii) the amino acid sequence from about position 23 to about position 435 in SEQ ID NO:2;
  - (iv) the amino acid sequence of the rδNt polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. PTA-1136; and
  - (v) the amino acid sequence of the mature rδNt polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. PTA-1136;

wherein said polypeptide comprises a deletion of the extracellular amino-terminal ligand binding domain of a PTH-1 receptor, said extracellular amino-terminal ligand binding domain having an amino acid sequence from about residue 26 to about residue 181 in wild-type PTH receptor;

- (b) measuring cAMP accumulation in said cells; and
- (c) determining whether said test compound is an agonist or an antagonist of PTH receptor activity.

26. (currently amended) A method of screening for an agonist or an antagonist of PTH receptor activity comprising:

- (a) contacting cells with a test compound wherein said cells express a rδNt polypeptide, wherein said cells comprise a polynucleotide having a nucleotide sequence selected from the group consisting of:
  - (i) a nucleotide sequence encoding the amino acid sequence from about position 1 to about position 435 in SEQ ID NO:2;
  - (ii) a nucleotide sequence encoding the amino acid sequence from about position 2 to about position 435 in SEQ ID NO:2;
  - (iii) a nucleotide sequence encoding the amino acid sequence from about position 23 to about position 435 in SEQ ID NO:2;
  - (iv) a nucleotide sequence encoding the rδNt polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. PTA-1136; and

(v) a nucleotide sequence encoding of the mature rδNt polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. PTA-1136;

wherein said polypeptide comprises a deletion of the extracellular amino-terminal ligand binding domain of a PTH-1 receptor, said extracellular amino-terminal ligand binding domain having an amino acid sequence from about residue 26 to about residue 181 in wild-type PTH receptor;

(b) measuring the biological response of cAMP accumulation in said cells;  
and

(c) determining whether said test compound is an agonist or an antagonist of PTH receptor activity.

27. (currently amended) A method of screening for an agonist or an antagonist of PTH receptor activity comprising:

(a) providing an iodinated test compound;  
(b) contacting cells with said iodinated test compound wherein said cells express a rδNt polypeptide, wherein said cells comprise a polynucleotide having a nucleotide sequence at least 95% identical to a sequence selected from the group consisting of:

(i) a nucleotide sequence encoding the amino acid sequence from about position 1 to about position 435 in SEQ ID NO:2, wherein the extracellular amino-terminal ligand binding domain is deleted;

(ii) a nucleotide sequence encoding the amino acid sequence from about position 2 to about position 435 in SEQ ID NO:2, wherein the extracellular amino-terminal ligand binding domain is deleted;

(iii) a nucleotide sequence encoding the amino acid sequence from about position 23 to about position 435 in SEQ ID NO:2, wherein the extracellular amino-terminal ligand binding domain is deleted;

(iv) a nucleotide sequence encoding the rδNt polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. PTA-1136, wherein the extracellular amino-terminal ligand binding domain is deleted; and

(v) a nucleotide sequence encoding the mature rδNt polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. PTA-1136, wherein the extracellular amino-terminal ligand binding domain is deleted;

wherein said polypeptide increases intracellular cAMP levels when activated by PTH or PTH-related peptide ~~has substantially identical structure and function to the structure and function of a rδNt receptor~~ and wherein said polypeptide ~~comprises a deletion of the extracellular amino-terminal ligand binding domain of a PTH-1 receptor,~~ said extracellular amino-terminal ligand binding domain has having an amino acid sequence from about residue 26 to about residue 181 in wild-type PTH receptor; and

(b) determining whether said iodinated test compound competitively binds to said rδNt polypeptide.

28. (currently amended) A method of screening for an agonist or an antagonist of PTH receptor activity comprising:

- (a) providing an iodinated test compound;
  - (b) contacting cells with said iodinated test compound wherein said cells express a rδNt polypeptide having an amino acid sequence at least 95% identical to a sequence selected from the group consisting of:
    - (i) the amino acid sequence from about position 1 to about position 435 in SEQ ID NO:2, wherein the extracellular amino-terminal ligand binding domain is deleted;
    - (ii) the amino acid sequence from about position 2 to about position 435 in SEQ ID NO:2, wherein the extracellular amino-terminal ligand binding domain is deleted;
    - (iii) the amino acid sequence from about position 23 to about position 435 in SEQ ID NO:2, wherein the extracellular amino-terminal ligand binding domain is deleted;
    - (iv) the amino acid sequence of the rδNt polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. PTA-1136, wherein the extracellular amino-terminal ligand binding domain is deleted; and
    - (v) the amino acid sequence of the mature rδNt polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. PTA-1136, wherein the extracellular amino-terminal ligand binding domain is deleted;
- wherein said polypeptide increases intracellular cAMP levels when activated by PTH or PTH-related peptide ~~has substantially identical structure and function to the~~



~~structure and function of a rδNt receptor~~ and wherein said ~~polypeptide comprises a~~  
~~deletion of the extracellular amino terminal ligand binding domain of a PTH-1 receptor,~~  
said extracellular amino-terminal ligand binding domain has ~~having~~ an amino acid  
sequence from about residue 26 to about residue 181 in wild-type PTH receptor; and

(b) determining whether said iodinated test compound competitively binds to  
said rδNt polypeptide.